
5. Fillings

Program Name: Fillings.java

Input File: fillings.dat

You are trying to edit your high school yearbook, and there are N slots where you can have pictures, with M pictures available. How many unique ways are there of filling these N slots with M pictures? Every slot should be filled with one of the M pictures, with no duplicates, of course. The number of pictures, M , will always be equal to or greater than the number of slots available, N .

For example, if you have 2 slots, A and B, and 3 pictures, P1, P2, and P3, there are six different ways these three pictures can be arranged in these 2 slots. Slots A and B could contain P1 and P2, or the pictures could be reversed, with P2 in the first slot and P1 in the second. The same possibilities apply to P1 and P3, or P2 and P3.

Input

The first line has the number of test cases, T , with T lines to follow, one for each test case. Each test case line contains two integers N , M .

Output

For each test case, output the number of ways as demonstrated above, one per line.

Constraints

$0 \leq T \leq 10$
 $1 \leq M \leq 10$
 $1 \leq N \leq 10$
 $N \leq M$

Example Input File

```
3
2 3
2 10
4 9
```

Example Output to Screen

```
6
90
3024
```